ENVIRONMENTAL ASSESSMENT
Case File No. : AA-082820
AK-040 EA01-010

Applicant: Municipality of Anchorage
Municipal Light & Power
1201 East 1st Ave.
Anchorage, Alaska 99501

Type of Action: Right-Of-Way, 43 CFR 2800.0-3

Location: Seward Meridian, T. 13 N., R. 2 W., Section 6, E½SW¼; Section 7, NE¼NW¼

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Date: March 15, 2001

I. INTRODUCTION:

A. Background:

This Environmental Assessment (EA) analyzes two phases of an electrical distribution line project. Municipal Light & Power (ML&P) has completed Phase II across private property. The Proposed Action covers a portion of Phase I and all of Phase III.

Phase I has been constructed. Phase I construction began at pole 1141-78A where the existing 35 KV distribution line crosses the north Glenn Highway frontage road near the Alaska Native Heritage Center. Phase I extended a three phase 12.47/7.2 KV (y) electrical line from pole 1141-78A east and then north to pole 942-88A. ML&P extended the line approximately 7,160 feet, with approximately one half of the project on private land and approximately one half or 3,650 feet of the project on the Fort Richardson Military Reservation. The line enters public lands on Fort Richardson about 75 feet before it reaches pole 1042-85A, where it departs from the Glenn Highway corridor. The line then proceeds north in the direction of the Alaska Department of Fish and Game (ADF&G) hatchery located within the Fort Richardson Military Reservation. Fort Richardson's Public Works Department has concurred with the project, by letter dated December 15, 2000. Authorization for construction was approved for the period of December 10, 2000 through April 15, 2001.

Phase III has not been constructed and will begin where Phase I ended. ML&P will extend the electrical line westerly to the hatchery. This phase will cover about 980 feet and include the placement of seven new power poles.

B. Purpose and Need for the Proposed Action:

ML&P has applied for a right-of-way to cross the Fort Richardson Military Reservation. The purpose is to construct a three phase 12.47/7.2 KV (y) electric distribution line to supply power to the ADF&G fish hatchery located within the Fort Richardson Military Reservation. The Fort Richardson power plant currently provides power to the hatchery. This power plant may be decommissioned within the next five years. By constructing this new distribution line, the hatchery will be guaranteed power if the power plant is decommissioned.

C. Conformance with Land Use Plan:

The Proposed Action has been reviewed and found to be in compliance with the Southcentral Management Framework Plan (MFP), March 1980. Objective Number L-2 of the MFP states the BLM intends to "Satisfy needs for rights-of-way." Objective Number L-1 of the MFP states the BLM intends to "Satisfy state and local government needs as well as public and/or private demonstrated needs for land as they arise."

II. PROPOSED ACTION AND ALTERNATIVE

A. Proposed Action:

ML&P has extended a new three phase 12.47/7.2 KV (y) distribution line from pole 1141-78A to pole 942-88A. ML&P proposes to continue this distribution line to the fish hatchery on Fort Richardson. The Proposed Action covers two phases of construction. Phase I, already in place on public land, is approximately 3,650 feet long. This Phase originates near pole 1042-85A where the existing distribution line departs private property and the Glenn Highway corridor and proceeds north through an existing clearing to the vicinity of the Fort Richardson Power Plant, ending at pole 942-88A. ML&P has already installed these lines and is seeking an authorization for them to remain. Phase III is approximately 980 feet long and departs from the existing distribution line between poles 942-88A and 25 and proceeds in a westerly and northwesterly direction through an existing clearing to the north end of the hatchery pond. Spans between the distribution line poles are approximately 280 feet. (Construction drawings showing pole locations can be found in the right-of-way case file.) The right-of-way is located in the Seward Meridian, T. 13 N., R. 2 W., Section 6, E½SW¼; Section 7, NE¼NW¼.

Construction Details

Phase I is an "under build" on an existing 35KV distribution line. New ten foot long cross arms and conductor have been installed six feet below the existing cross arms. Guy poles have been installed 6.5 feet deep in augured holes at pole 1042-85A. Anchors have been installed in holes dug with a backhoe. Material from the augured holes was used as backfill and compacted in place. No brush or trees were cut, this is an existing two-track access route used in maintenance of existing power lines.

Phase III involves installation of seven new electric poles as follows: one power pole (942-89B) and one pole used as a "wing" guy underneath the existing distribution line between poles 942-88A and 25, three new distribution line poles between new pole 942-89B and the north side of the hatchery pond and two poles supporting a transformer platform at the north end of the hatchery pond. The poles will be buried to a depth of 6.5 feet in augured holes. Material from the augured holes will be used as backfill and compacted in place. Guys will be installed at new poles 0942-68A and 0942-59A. A new pad mounted metering switch cabinet will be installed north of the hatchery pond between the transformer platform and ADF&G owned switchgear. Approximately 20 feet of distribution cable will be installed in a trench between the transformer platform, the metering switch cabinet and the base of the poles supporting the transformer

platform. The trench will be excavated with a backhoe. Excavated material will be used to backfill the trench and will be compacted in place. Brush may need to be cleared to permit passage of construction equipment. Two large cottonwood trees at the transformer site on the north side of the hatchery pond will be cut. The trees will be cut, limbed and removed from the site.

Construction equipment used will include one foreman's vehicle, one line truck, one support truck, one auger truck, one pole trailer, one reel trailer and one backhoe. Fuel will not be stored on public lands, and there will be no fueling of equipment on the project area. All waste materials will be removed to an approved disposal facility.

ML&P proposes to construct the distribution line during the winter of 2000/2001 when the ground is frozen to reduce impacts to surface resources. The construction crew will consist of a foreman, four linemen and two apprentices. Construction will take approximately three weeks.

B. No Action Alternative:

The No Action Alternative would be to deny the right-of-way. Under this Alternative ML&P would have to remove the electrical line they have already extended to pole 942-88A. Under this Alternative Phase III of the Proposed Action will not take place. If this right-of-way is denied, the fish hatchery would continue to receive power from the Fort Richardson power plant. If the Army decommissions the power plant within the next five years, BLM can expect to receive another application for the same project.

III. AFFECTED ENVIRONMENT

A. Critical Elements:

The following critical elements of the human environment have been analyzed and are either not present or will not be affected by the Proposed Action or the No Action Alternative.

Air Quality
Areas of Critical Environmental Concern
Cultural Resources/Paleontology
Environmental Justice
Farmlands (Prime or Unique)
Flood plains
Native American Religious Concerns
Subsistence
Threatened and Endangered Species
Wastes (Hazardous/Solid)

Water Quality (Surface/Ground)
Wetlands/Riparian Zones
Wild and Scenic Rivers
Wilderness

1. ANILCA Section 810 Clearance:
The Proposed Action and Alternative have been analyzed and determined to have no effect on any subsistence uses or needs under Section 810. The lands are withdrawn by Executive Order 8102 for a military reservation.

2. Cultural Resources:
The first archaeological evidence of people in the Cook Inlet area is sparse. Two widely separated sites contribute information about these inhabitants. The Long Lake site, located along the Glenn Highway, contained a core and blade assemblage that may be associated with the end of the Denali Complex (approximately 8000-9000 years ago)(Reger and Bacon 1996). The oldest occupation at Beluga Point, located on Turnagain Arm, dates to approximately 7000 to 8000 years ago but cannot be more firmly dated. The cultural component of these core and blade assemblages are unknown (Reger 1996).

The people inhabiting the Anchorage area at the time of first recorded history were Tanaina of the Susitna society, a group which occupied the Cook Inlet area from approximately Turnagain Arm in the west to Tuxedni Bay to the east. The Tanaina lived in winter villages located along the major salmon streams which provided much of their food stores. No Tanaina villages are known for Fort Richardson. The closest village to this area is Eklutna. The area now encompassing Fort Richardson was undoubtably used by the Tanaina for subsistence activities, especially the coastline and the salmon streams. No Russian settlements were located in the Cook Inlet area. European impacts upon the Cook Inlet Tanaina began in the 1880's when salmon canneries began to monopolize fishing streams in the area (Townsend 1981).

Beginning in the 1890's, Non-Native settlement of the general area was stimulated by the search for gold. In 1915 the Alaska Rail Road, which was being built from the town of Seward, reached Ship Creek and the town of Anchorage was platted. Some homesteads were situated within the area of Fort Richardson, but were acquired by the military when the land was withdrawn from public entry in 1939. With the build up of the military along Cook Inlet during World War II, a base for the present day population established itself.

No cultural resources are known for the area of this project. Given the previous disturbance in the area of the project, no previously unknown cultural resources are expected for the area of potential effect. A stipulation addressing unexpected discoveries will be attached to the right-of-way.

3. Threatened and Endangered (T&E) Species Clearance:
The Proposed Action and Alternative were evaluated in accordance with the Endangered Species Act of 1973, as amended. The Proposed Action and Alternative were determined to have no effect on threatened and endangered plants and animals and their habitats. No consultation with the U.S. Fish and Wildlife Service (USF&WS) is necessary pursuant to Section 7 of the Act.

B. Land Status:
This land is under a withdrawal for a military reservation. The role of the BLM is to manage the vegetative and mineral resources. BLM issues land authorizations for this withdrawal, subject to the concurrence of the military. Fort Richardson's Public Works Department has concurred with the project, by letter dated December 15, 2000. Authorization for construction was approved for the period of December 10, 2000 through April 15, 2001.

C. Vegetation:
The project area is within the Cook Inlet/Susitna Lowlands major land resource area. Vegetation in and around the project area has a history of disturbance from activities associated with the fish hatchery and military operations. Climax vegetation would consist of paper birch, white spruce and cottonwoods, interspersed with thick patches of alder and willow brush.

D. Visual Resources:
This area is managed under a Class III Objective. The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer.

E. Recreation:
The area traversed by the power line has limited recreation value as the land is reserved for military purposes and the area is partially developed. Little recreation activity occurs in the project area.

F. Wildlife:

The site of the Proposed Action and surrounding area supports a variety of animal species. Resident populations include moose, porcupine, snowshoe hare, microtine rodents and at least 40 species of resident and migrant land birds. Non-resident species that have been seen include fox, coyote, wolf, lynx, brown bear and black bear. These animals move through the area, probably from the Chugach Mountains during seasonal changes and heavy snowfall. Many migrant birds pass through the area during spring and fall migration, including several raptor and many neo-tropical species. Shrub and forest habitats provide nesting habitat for land birds and raptors, particularly Bald Eagles. There is one species of amphibian, the wood frog, that occurs in the area.

G. Soils:

Soils in the project area are of the typic cryorthods subgroup of the orthod soil group. These soils make up approximately 40% of the subgroup area and consists of soils which are dominant on gravelly, nearly level to undulating outwash plains and rolling moraines. Soils are15 to 18 inches thick over gravelly glacial drift. Soils typically have a thin gray surface layer over a reddish brown to yellowish subsurface layer 6 to 12 inches thick overlying a very gravelly coarse sand or sandy loam containing many stones and boulders. The soils have few limitations for construction and should pose no obstacle for accessing the site or constructing the power line.

IV. ENVIRONMENTAL CONSEQUENCES

A. Impacts of the Proposed Action:

1. Critical Element - Invasive, Non-Native Species:

Areas that are cleared and disturbed could be invaded by invasive, non-native species. The likelihood of this depends on whether there are seed sources in nearby areas or if seeds are transported in on construction equipment. The quicker disturbed sites revegetate, the less chance of invasive, non-native species becoming established.

2. Vegetation:

Under the Proposed Action, there would be minor impacts to the vegetation in the project area provided vegetation is cleared by cutting without blading or dozing to mineral soil. Most of the impacts would be the temporary clearing of vegetation for passage of the construction equipment, trampling, and the 20 foot trench. Small amounts of vegetation would be permanently displaced by the seven power poles in Phase III. Phase III also requires the harvest and removal of two cottonwood trees from the site. These cottonwood trees have no

commercial value and will not be sold. These trees will be removed from the site. This activity will not result in a deleterious effect to the forest resources of the area.

Areas disturbed to the soil could likely recolonize the first few years in weeds. Much of the adjacent areas are at different successional stages due to human influences. Each area would progress to a climax community in due time, if no other impacts would occur.

Due to encroaching military developments surrounding the area, weedy invasive plant species are expected to increase in the more disturbed areas.

3. Visual Resources:
There will be some visual impact in the form of power lines and trenches. Visibility of the power lines will be limited because of surrounding tree cover.

4. Wildlife:
Wildlife will be temporarily displaced during the time construction takes place. This impact will be short term and of limited impact. Bald eagles and other raptors breed in the Anchorage Bowl and may use power lines for roosting. This may lead to electrocution if the spacing on the wires is insufficient to prevent contact by roosting raptors.

5. Soils:
The proposal involves constructing the power line while the ground is frozen to prevent damage to the ground surface and to vegetation. Drilling, trenching and digging anchor holes will be conducted in frozen ground. Other than the removal of soil from the holes and the trench no other impacts are anticipated.

B. Impacts of the No Action Alternative:

1. Vegetation:
Removal of the existing line would take place along an existing access route, there will be no impacts to vegetation. Maintenance of the existing line would cause periodic minor disturbance to vegetation.

2. Visual Resources:
Removal of this additional line would slightly improve the visual quality.

3. Wildlife:
Wildlife would be displaced for short periods while removal takes place, and wildlife would be displaced for short periods while routine maintenance occurs.

C. Cumulative Impacts:
The Proposed Action will add to the development that is taking place in the Anchorage Bowl. Because of the size, location and low visibility of the site, the impact will be slight.

D. Residual Impacts:
Residual impacts would be the long term loss of a few hundred square feet of vegetation and wildlife habitat where poles were set and vegetation was changed.

E. Mitigation Measures:
To minimize introduction of invasive non-native plant species, equipment, gravel and other materials brought on-site must be free of weed sources. Disturbed sites should be monitored to determine if non-native species become established. If these species are found, they must be removed. Any areas that do not revegetate by the end of the second growing season must be seeded with a native seed. If disturbed areas are excessive in size they may require seeding after construction. No blading or removal of vegetation to mineral soil on the right-of-way or access routes will be allowed.

All soil removed from the ground and not replaced in the holes and trench will be evenly spread around each hole and the trench. Removal of vegetation will be held to a minimum. Routes to, from and along the power line will be held to a minimum.

New power lines, as well as additions to existing lines, must be configured to prevent the electrocution of raptors. Standards for raptor safe power lines are based on minimum spacing of 60 inches between phases or between phase and ground wires or any grounded structure. These dimensions are adequate to protect most birds, including larger species like eagles and ospreys, under most conditions. A comprehensive review of the design of raptor safe power lines can be found in the publication cited below. A copy of this publication can be found at the BLM Anchorage Field Office. The electrocution of raptors on power lines is considered a taking of protected wildlife and is subject to prosecution by the USF&WS if not corrected.

Avian Power Line Interaction Committee (APLIC). 1996.
Suggested Practices for Raptor Protection of Power Lines:
The State of the Art in 1996.
Edison Electric Institute/Raptor Research Foundation
Washington D. C.

V. CONSULTATION AND COORDINATION:

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